USDA FOREST SERVICE

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NORTH CENTRAL FOREST EXPERIMENT STATION, FOREST SERVICE—U.S. DEPARTMENT OF AGRICULTURE

Folwell Avenue, St. Paul, Minnesota 55101

PRESCRIBED BURNING IN THE CENTRAL LAKE STATES--1972

ABSTRACT.--Reports the various applications and average costs of prescribed burning in the Central Lake States during 1972.

OXFORD: 436(77):156:232.21. KEY WORDS: wildlife habitat improvement, site-seedbed preparation, hazard reduction, prairie grass regeneration, burning cost.

During 1972 approximately 12,800 acres were prescribed burned in five Lake States--Michigan, Minnesota, Wisconsin, Ohio, and Illinois. Prescribed fires in Ohio were primarily for research and experimental purposes. Most prescribed burning in the other States was conducted for operational functions, usually resulting in larger burned areas.

More acreage was reported in 1972 than in 1971. This additional area was burned primarily for wildlife habitat improvement (more than two-thirds of the total) and prairie grass regeneration. Prescribed burning for seedbed and planting-site preparation constituted a large portion of the remaining area. Acreage burned for hazard reduction decreased significantly from 1971. In the past most of the Forest Service's prescribed fires were for this purpose; in 1972 very little land was burned by this agency for hazard reduction.

Nearly 72 percent of the prescribed fires for wildlife habitat improvement were set in March, April, and May. More than half of these spring wildlife burns were concentrated in May. Prescribed burning for planting-site and seedbed preparation was done during late spring, summer, and fall. Although most of the burning for site preparation was done in May and October, seedbed preparation burns were concentrated in August and September. Most prescribed burning for hazard reduction and prairie grass regeneration took place in the spring.

Fuel type, burning season, and purpose of burn are, of course, closely related. Coniferous fuels were burned in the summer and fall, especially during August and September. All prescribed fires in aspen stands were conducted in May. Most brush and grass fuels were burned in spring.

Excluding the no expense fire (Table 1), costs ranged from $0.08 to $11.23 per acre. Usually fires involving the least hazardous fuels or large acreages cost less per burned acre. As in previous years, then, fires for wildlife habitat improvement and prairie grass regeneration commonly cost less than those burned for hazard reduction and site or seedbed preparation.

Land management agencies are now using prescribed fire for more purposes than they did in the past. This seems to indicate an acceptance of prescribed fire as a management tool.

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LINDA R. DONOGHUE
Research Forester
East Lansing, Michigan
(Office maintained in cooperation with Michigan State University)

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Table 1.--*A summary of reported prescribed burns by purpose in the Central Lake States during 1972*

Agency	Planting site preparation		Seedbed preparation		Wildlife habitat improvement		Hazard reduction		Prairie grass regeneration		Experimental		Total area
	Area burned	Ave. cost per acre[1]	Area burned	Ave. cost per acre[1]	Area burned	Ave. cost per acre[1]	Area burned	Ave. cost per acre[1]	Area burned	Ave. cost per acre[1]	Area burned	Ave. cost per acre[1]	
	Acres	Dollars	Acres	Dollars	Acres	Dollars	Acres	Dollars	Acres	Dollars	Acres	Dollars	Acres
Michigan Dept. of Natural Resources	110	7.63			284	11.23							394
Minnesota Dept. of Natural Resources	576	6.97	999	5.73	2,452	3.50	200	1.90	136	[2]0.00			4,363
Ohio Dept. of Natural Resources					54	1.50							54
Wisconsin Dept. of Natural Resources	56	7.86			373	1.65	119	8.31	288	0.76			836
USDA Forest Service[3] (Wis., Minn. & Mich.)	1,112	[4]10.14			15	10.60	65	5.31					1,192
U.S. Bureau of Sport Fisheries & Wildlife					905	0.12							905
USDI Agassiz National Wildlife Refuge (Minn.)					4,280	0.08							4,280
USDI Crab Orchard National Wildlife Refuge (Illinois)					313	1.85	372	2.77	85	1.68	27	1.41	797
Total	1,854		999		8,676		756		509		27		12,821

1/ Weighted by area this procedure differs from the method used in earlier years (Sando 1969, 1971a, 1971b). It follows the formula shown in the summary for 1971 (Donoghue 1973).
2/ Volunteer fire, no cost incurred.
3/ Acreage and cost reported by this agency for planting site preparation also includes seedbed preparation burns.
4/ Cost not reported for 380 acres.

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